WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Monday, November 22, 2004

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L4	(interleukin-22 or il-22) same (muta$7 or variant)	23
☐	L3	(interleukin-22 or il-22) and (muta$7 or variant)	113
☐	L2	(interleukin-22 or il-22) and (dimerization interface or dimerization domain)	4
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L1	(interleukin-22 or il-22) and (dimerization interface or dimerization domain)	0

END OF SEARCH HISTORY

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 4 of 4 returned.

☐ 1. Document ID: US 20040002586 A1

Using default format because multiple data bases are involved.

L2: Entry 1 of 4 File: PGPB Jan 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040002586
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040002586 A1

TITLE: Crystal structure of interleukin-22 and uses thereof

PUBLICATION-DATE: January 1, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nagem, Ronaldo A.P.	Campinas		BR	
Polikarpov, Igor	San Carlos		BR	
Renauld, Jean Christophe	Brussels		BE	
Colau, Didier	Brussels		BE	
Dumoutier, Laure	Brussels		BE	

US-CL-CURRENT: 530/351; 703/11

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 2. Document ID: US 20020187512 A1

L2: Entry 2 of 4 File: PGPB Dec 12, 2002

PGPUB-DOCUMENT-NUMBER: 20020187512
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020187512 A1

TITLE: Crystal structure of human interleukin-22

PUBLICATION-DATE: December 12, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nagem, Ronaldo Alves Pinto	Campinas	NY	BR	
Polikarpov, Igor	Sao Carlos	NY	BR	
Renauld, Jean Christophe	New York	NY	US	

Colau, Didier	New York	US
Dumoutier, Laure	New York	US

US-CL-CURRENT: 435/7.1; 435/69.52, 702/19

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

---

☐ 3. Document ID: US 20040002586 A1

L2: Entry 3 of 4 File: DWPI Jan 1, 2004

DERWENT-ACC-NO: 2004-061676
DERWENT-WEEK: 200406

TITLE: Identifying a mutant mammalian interleukin-22 (IL-22) with modified stability to dimerize and/or bind an IL-22 receptor comprises constructing a three-dimensional structure of hIL-22 defined by the atomic coordinates given

INVENTOR: COLAU, D; DUMOUTIER, L ; NAGEM, R A P ; POLIKARPOV, I ; RENAULD, J C

PRIORITY-DATA: 2002US-0238965 (September 10, 2002), 2001US-317937P (September 10, 2001), 2001US-333150P (November 27, 2001), 2002US-0050552 (January 18, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040002586 A1	January 1, 2004		104	C07K014/54

INT-CL (IPC): C07 K 14/54; G06 G 7/48; G06 G 7/58

ABSTRACTED-PUB-NO: US20040002586A
BASIC-ABSTRACT:

NOVELTY - Identifying a mutant mammalian interleukin-22 (IL-22) with modified stability to dimerize and/or bind an IL-22 receptor comprises constructing a three-dimensional structure of hIL-22 defined by the atomic coordinates given in the specification.

DETAILED DESCRIPTION - The method comprises:

(a) constructing a three-dimensional structure of hIL-22 defined by the atomic coordinates given in the specification;

(b) employing the three-dimensional structure and modeling methods to identify an amino acid involved in stabilizing IL-22 dimer and/or to identify an amino acid involved in receptor binding;

(c) producing a mammalian IL-22 having a mutation at the amino acid cited above; and

(d) assaying the mutant IL-22 to determine the ability of the mutant to dimerize and/or to bind to the IL-22 receptor as compared to an IL-22 control, where a difference in dimerization or binding between the mutant and the control is indicative of a modified ability to dimerize or to bind to the IL-22 receptor.

INDEPENDENT CLAIMS are included for the following:

(1) a mutant IL-22 comprising at least one amino acid substitution in Region 1 or Region 2;

(2) a mutant IL-22 comprising at least one mutation at an IL-22 dimerization interface;

(3) a method for determining the ability of a substance of interest to bind to IL-22 or its mutant form;

(4) a method for determining if a substance has potential usefulness as an antagonist or agonist of IL-22 or its mutant form; and

(5) a machine-readable storage medium containing machine-readable data comprising at least a portion of structural coordinates of IL-22 or its mutant form.

USE - The method is useful for identifying a mutant mammalian IL-22 with modified stability to dimerize and/or bind an IL-22 receptor (claimed).

☐ 4. Document ID: AU 2002341641 A1, US 20020187512 A1, WO 2003023012 A2

L2: Entry 4 of 4 File: DWPI Mar 24, 2003

DERWENT-ACC-NO: 2003-370763
DERWENT-WEEK: 200461

TITLE: New mutant interleukin-22 (IL-22) with mutation(s) at an IL-22 dimerization interface, useful as an antagonist for treating and inhibiting IL-22 mediated processes or IL-22 related disorders, e.g. asthma, inflammation or cancer

INVENTOR: COLAU, D; DUMOUTIER, L ; NAGEM, R A ; POLIKARPOV, I ; RENAULD, J C ; NAGEM, R A P

PRIORITY-DATA: 2002US-0050552 (January 18, 2002), 2001US-317937P (September 10, 2001), 2001US-333150P (November 27, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 2002341641 A1	March 24, 2003		000	G01N033/53
US 20020187512 A1	December 12, 2002		102	G01N033/53
WO 2003023012 A2	March 20, 2003	E	000	C12N000/00

INT-CL (IPC): C12 N 0/00; C12 P 21/04; G01 N 33/48; G01 N 33/50; G01 N 33/53; G06 F 19/00

ABSTRACTED-PUB-NO: US20020187512A
BASIC-ABSTRACT:

NOVELTY - A mutant interleukin-22 (IL-22), which comprises at least one amino acid substitution in Region 1 or Region 2, or which comprises at least one mutation at an IL-22 dimerization interface, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for identifying a mutant mammalian IL-22 with a modified ability to dimerize and/or bind an IL-22 receptor, comprising:

(a) constructing a three-dimensional structure of hIL-22 defined by the atomic coordinates fully defined in the specification;

(b) employing the three-dimensional structure and modeling methods to identify an amino acid involved in stabilizing an IL-22 dimer, and/or to identify an amino acid involved in receptor binding;

(c) producing a mammalian IL-22 having a mutation at an amino acid identified in (b); and

(d) assaying the mutant IL-22 to determine the ability of the mutant to dimerize as compared to an IL-22 control, where a difference in dimerization between the mutant and the control is indicative of a modified ability to dimerize, and/or assaying the mutant IL-22 to determine the ability of the mutant to bind to the IL-22 receptor as compared to an IL-22 control, where a difference in binding between the mutant and the IL-22 control is indicative of a modified ability to bind the IL-22 receptor.

ACTIVITY - Antiasthmatic; Antiinflammatory; Cytostatic.

No biological data given.

MECHANISM OF ACTION - Interleukin-22 Agonist/Antagonist.

USE - The mutant IL-22 is useful as a therapeutic agent, particularly as agonists or antagonists. In particular, the mutant IL-22 is useful for treating and inhibiting IL-22 mediated processes or IL-22 related disorders, e.g. asthma, inflammation or cancer. The three-dimensional crystal structure of IL-22 is useful for identifying specific amino acids involved in binding the IL-22 receptor, and in rational drug design for producing therapeutic molecules, mimetics, IL-22 mutants, or ligands of the IL-22 receptor.

Terms	Documents
(interleukin-22 or il-22) and (dimerization interface or dimerization domain)	4

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 20 of 23 returned.

☐ 1. Document ID: US 20040209330 A1

Using default format because multiple data bases are involved.

L4: Entry 1 of 23 File: PGPB Oct 21, 2004

PGPUB-DOCUMENT-NUMBER: 20040209330
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040209330 A1

TITLE: Anti-IL-22RA antibodies and binding partners and methods of using in inflammation

PUBLICATION-DATE: October 21, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Xu, Wenfeng	Seattle	WA	US	
Kindsvogel, Wayne	Seattle	WA	US	
Chandrasekher, Yasmin A.	Saratoga	CA	US	
Dillon, Stacey R.	Seattle	WA	US	
Lehner, Joyce M.	Seattle	WA	US	
Siadak, Anthony W.	Seattle	WA	US	
Sivakumar, Pallavur V.	Seattle	WA	US	
Moore, Margaret D.	Seattle	WA	US	

US-CL-CURRENT: 435/70.21

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 2. Document ID: US 20040180399 A1

L4: Entry 2 of 23 File: PGPB Sep 16, 2004

PGPUB-DOCUMENT-NUMBER: 20040180399
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040180399 A1

TITLE: Isolated nucleic acid molecules which encode a soluble IL-TIF/IL-22 receptor or binding protein which binds to IL-TIF/IL-22, and uses thereof

PUBLICATION-DATE: September 16, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Renauld, Jean-Christophe	Brussels		BE	
Dumoutier, Laure	Brussels		BE	

US-CL-CURRENT: 435/69.1; 435/320.1, 435/325, 530/350, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw. D

☐ 3. Document ID: US 20040106184 A1

L4: Entry 3 of 23 File: PGPB Jun 3, 2004

PGPUB-DOCUMENT-NUMBER: 20040106184
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040106184 A1

TITLE: Chromatographic methods for adenovirus purification

PUBLICATION-DATE: June 3, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Senesac, Joseph	Houston	TX	US	

US-CL-CURRENT: 435/239

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw. D

☐ 4. Document ID: US 20040092445 A1

L4: Entry 4 of 23 File: PGPB May 13, 2004

PGPUB-DOCUMENT-NUMBER: 20040092445
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040092445 A1

TITLE: Use of LP82 to treat hematopoietic disorders

PUBLICATION-DATE: May 13, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Heuer, Josef Georg	Indianapolis	IN	US	
Liu, Ling	Carmel	IN	US	
Noblitt, Timothy W	Fishers	IN	US	

US-CL-CURRENT: 514/12

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw. D

☐ 5. Document ID: US 20040071699 A1

L4: Entry 5 of 23 File: PGPB Apr 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040071699
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040071699 A1

TITLE: Isolated nucleic acid molecules which encode a soluble IL-TIF receptor or binding protein which binds to IL-TIF/IL-22, and uses thereof

PUBLICATION-DATE: April 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Renauld, Jean-Christophe	Brussels		BE	
Dumourjer, Laure	Brussels		BE	

US-CL-CURRENT: 424/145.1; 435/320.1, 435/335, 435/69.1, 530/388.23, 536/23.53

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 6. Document ID: US 20040002586 A1

L4: Entry 6 of 23 File: PGPB Jan 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040002586
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040002586 A1

TITLE: Crystal structure of interleukin-22 and uses thereof

PUBLICATION-DATE: January 1, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nagem, Ronaldo A.P.	Campinas		BR	
Polikarpov, Igor	San Carlos		BR	
Renauld, Jean Christophe	Brussels		BE	
Colau, Didier	Brussels		BE	
Dumoutier, Laure	Brussels		BE	

US-CL-CURRENT: 530/351; 703/11

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 7. Document ID: US 20030225017 A1

L4: Entry 7 of 23 File: PGPB Dec 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030225017
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030225017 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: December 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Murdin, Andrew D.	Richmond Hill		CA	
Oomen, Raymond P.	Aurora		CA	
Wang, Joe	Toronto		CA	
Dunn, Pamela	Woodbridge		CA	

US-CL-CURRENT: 514/44; 424/185.1, 435/252.3, 435/320.1, 435/6, 435/69.3, 530/350, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 8. Document ID: US 20030186387 A1

L4: Entry 8 of 23 File: PGPB Oct 2, 2003

PGPUB-DOCUMENT-NUMBER: 20030186387
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030186387 A1

TITLE: Interleukins-21 and 22

PUBLICATION-DATE: October 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ebner, Reinhard	Gaithersburg	MD	US	
Ruben, Steven M.	Brookeville	MD	US	

US-CL-CURRENT: 435/69.52; 424/85.2, 435/320.1, 435/325, 530/351, 530/388.23, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 9. Document ID: US 20030170839 A1

L4: Entry 9 of 23 File: PGPB Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030170839
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030170839 A1

TITLE: Type 2 cytokine receptor and nucleic acids encoding same

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Fouser, Lynette	Acton	MA	US	
Liu, Wei	Auburndale	MA	US	
Deng, Bijia	Allston	MA	US	

US-CL-CURRENT: 435/183; 435/320.1, 435/325, 435/6, 435/69.1, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw De

---

☐ 10. Document ID: US 20030157106 A1

L4: Entry 10 of 23 File: PGPB Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157106
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030157106 A1

TITLE: Composition and method for treating inflammatory disorders

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Jacobs, Kenneth	Newton	MA	US	
Pittman, Debra D.	Windham	NH	US	
Fouser, Lynette	Acton	MA	US	
Spaulding, Vikki	Lowell	MA	US	
Xuan, Dejun	Chestnut Hill	MA	US	

US-CL-CURRENT: 424/145.1; 530/388.23

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw De

---

☐ 11. Document ID: US 20030100076 A1

L4: Entry 11 of 23 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030100076
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030100076 A1

TITLE: Interleukin-22 polypeptides, nucleic acids encoding the same and methods for the treatment of pancreatic disorders

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gurney, Austin L.	Belmont	CA	US	
Aggarwal, Sudeepta	San Bruno	CA	US	
Xie, Ming-Hong	San Francisco	CA	US	
Maruoka, Ellen M.	San Francisco	CA	US	
Foster, Jessica S.	Hayward	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Wood, William I.	Hillsborough	CA	US	

US-CL-CURRENT: 435/69.52; 435/320.1, 435/325, 530/351, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

---

☐ 12. Document ID: US 20030099649 A1

L4: Entry 12 of 23 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030099649
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030099649 A1

TITLE: Composition and method for treating inflammatory disorders

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Jacobs, Kenneth	Newton	MA	US	
Pittman, Debra D.	Windham	NH	US	
Fouser, Lynette	Acton	MA	US	
Spaulding, Vikki	Lowell	MA	US	
Xuan, Dejun	Chestnut Hill	MA	US	

US-CL-CURRENT: 424/145.1; 530/388.23

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

---

☐ 13. Document ID: US 20030092133 A1

L4: Entry 13 of 23 File: PGPB May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030092133
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030092133 A1

TITLE: Interleukins-21 and 22

PUBLICATION-DATE: May 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ebner, Reinhard	Gaithersburg	MD	US	
Ruben, Steven M.	Olney	MD	US	

US-CL-CURRENT: 435/69.52; 435/320.1, 435/325, 530/351, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

---

☐ 14. Document ID: US 20030012788 A1

L4: Entry 14 of 23 File: PGPB Jan 16, 2003

PGPUB-DOCUMENT-NUMBER: 20030012788
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030012788 A1

TITLE: Method for influencing kinase pathways with IL-22

PUBLICATION-DATE: January 16, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Renauld, Jean-Christophe	Brussels		BE	
Lejeune, Diane	Brussels		US	
Dumoutier, Laure			BE	

US-CL-CURRENT: 424/145.1; 435/6, 435/7.21

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

---

☐ 15. Document ID: US 20030003545 A1

L4: Entry 15 of 23 File: PGPB Jan 2, 2003

PGPUB-DOCUMENT-NUMBER: 20030003545
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030003545 A1

TITLE: INTERLEUKINS-21 AND 22

PUBLICATION-DATE: January 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
EBNER, REINHARD	GAITHERSBURG	MD	US	
RUBEN, STEVEN M.	OLNEY	MD	US	

US-CL-CURRENT: 435/69.5; 424/130.1, 424/143.1, 424/85.2, 435/320.1, 435/325, 435/6, 435/69.2, 435/69.52, 530/351, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 16. Document ID: US 20020187512 A1

L4: Entry 16 of 23 File: PGPB Dec 12, 2002

PGPUB-DOCUMENT-NUMBER: 20020187512
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020187512 A1

TITLE: Crystal structure of human interleukin-22

PUBLICATION-DATE: December 12, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nagem, Ronaldo Alves Pinto	Campinas	NY	BR	
Polikarpov, Igor	Sao Carlos	NY	BR	
Renauld, Jean Christophe	New York	NY	US	
Colau, Didier	New York		US	
Dumoutier, Laure	New York		US	

US-CL-CURRENT: 435/7.1; 435/69.52, 702/19

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 17. Document ID: US 20020102723 A1

L4: Entry 17 of 23 File: PGPB Aug 1, 2002

PGPUB-DOCUMENT-NUMBER: 20020102723
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020102723 A1

TITLE: Interleukin-22 polypeptides, nucleic acids encoding the same and methods for the treatment of pancreatic disorders

PUBLICATION-DATE: August 1, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gurney, Austin L.	Belmont	CA	US	
Aggarwal, Sudeepta	San Bruno	CA	US	
Xie, Ming-Hong	San Francisco	CA	US	
Maruoka, Ellen M.	San Francisco	CA	US	
Foster, Jessica S.	Hayward	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Wood, William I.	Hillsborough	CA	US	

US-CL-CURRENT: 435/320.1; 424/134.1, 435/325, 435/69.1, 514/44, 530/324, 530/350, 530/387.9, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw De

---

☐ 18. Document ID: US 20010023070 A1

L4: Entry 18 of 23 File: PGPB Sep 20, 2001

PGPUB-DOCUMENT-NUMBER: 20010023070
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010023070 A1

TITLE: Interleukins-21 and 22

PUBLICATION-DATE: September 20, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ebner, Reinhard	Gaithersburg	MD	US	
Ruben, Steven M.	Olney	MD	US	

US-CL-CURRENT: 435/69.5; 435/325, 435/6, 435/7.1, 530/351, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw De

---

☐ 19. Document ID: US 6551799 B2

L4: Entry 19 of 23 File: USPT Apr 22, 2003

US-PAT-NO: 6551799
DOCUMENT-IDENTIFIER: US 6551799 B2

TITLE: Interleukin-22 polypeptides, nucleic acids encoding the same and methods for the treatment of pancreatic disorders

DATE-ISSUED: April 22, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gurney; Austin L.	Belmont	CA		
Aggarwal; Sudeepta	San Bruno	CA		
Xie; Ming-Hong	San Francisco	CA		
Maruoka; Ellen M.	San Francisco	CA		
Foster; Jessica S.	Hayward	CA		
Goddard; Audrey	San Francisco	CA		
Wood; William I.	Hillsborough	CA		

US-CL-CURRENT: 435/69.52; 435/320.1, 435/325, 530/351

ABSTRACT:

The present invention is directed to interleukin-22 polypeptides and nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

6 Claims, 11 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 11

☐ 20. Document ID: US 6395538 B1

L4: Entry 20 of 23 File: USPT May 28, 2002

US-PAT-NO: 6395538
DOCUMENT-IDENTIFIER: US 6395538 B1

TITLE: Method and system for providing real-time, in situ biomanufacturing process monitoring and control in response to IR spectroscopy

DATE-ISSUED: May 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Naughton; Raymond A.	West River	MD		
Rohrer; Thomas R.	Hagerstown	MD		
Gentz; Reiner L.	Rockville	MD		

US-CL-CURRENT: 435/288.7; 435/173.1, 435/173.7

ABSTRACT:

A method and system for providing real-time, biomanufacturing process monitoring and control in response to infra-red (IR) spectroscopic fingerprinting of a biomolecule. IR spectroscopy is used to fingerprint an active biomolecule in situ in a biomanufacturing process. In one embodiment, Fourier Transform Infra-red spectroscopy (FTIR) is used to determine whether an active or aged biomolecule is present in stages of a biomanufacturing process. In one preferred example, the biomanufacturing process manufactures a biomaterial in bulk. The biomanufacturing process has four stages: bioproduction, recovery, purification, and bulk storage. FTIR spectroscopy is used to monitor the optimization of each process step by providing feedback controls, and to fingerprint in real-time, in situ whether active biomolecules are present in each stage.

27 Claims, 13 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 13

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 21 through 23 of 23 returned.

☐ 21. Document ID: US 20040002586 A1

Using default format because multiple data bases are involved.

L4: Entry 21 of 23 File: DWPI Jan 1, 2004

DERWENT-ACC-NO: 2004-061676
DERWENT-WEEK: 200406
COPYRIGHT 2004 DERWENT INFORMATION LTD
TITLE: Identifying a mutant mammalian interleukin-22 (IL-22) with modified stability to dimerize and/or bind an IL-22 receptor comprises constructing a three-dimensional structure of hIL-22 defined by the atomic coordinates given

INVENTOR: COLAU, D; DUMOUTIER, L ; NAGEM, R A P ; POLIKARPOV, I ; RENAULD, J C

PRIORITY-DATA: 2002US-0238965 (September 10, 2002), 2001US-317937P (September 10, 2001), 2001US-333150P (November 27, 2001), 2002US-0050552 (January 18, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040002586 A1	January 1, 2004		104	C07K014/54

INT-CL (IPC): C07 K 14/54; G06 G 7/48; G06 G 7/58

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 22. Document ID: AU 2002341641 A1, US 20020187512 A1, WO 2003023012 A2

L4: Entry 22 of 23 File: DWPI Mar 24, 2003

DERWENT-ACC-NO: 2003-370763
DERWENT-WEEK: 200461
COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: New mutant interleukin-22 (IL-22) with mutation(s) at an IL-22 dimerization interface, useful as an antagonist for treating and inhibiting IL-22 mediated processes or IL-22 related disorders, e.g. asthma, inflammation or cancer

INVENTOR: COLAU, D; DUMOUTIER, L ; NAGEM, R A ; POLIKARPOV, I ; RENAULD, J C ; NAGEM, R A P

PRIORITY-DATA: 2002US-0050552 (January 18, 2002), 2001US-317937P (September 10, 2001), 2001US-333150P (November 27, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 2002341641 A1	March 24, 2003		000	G01N033/53
US 20020187512 A1	December 12, 2002		102	G01N033/53
WO 2003023012 A2	March 20, 2003	E	000	C12N000/00

INT-CL (IPC): C12 N 0/00; C12 P 21/04; G01 N 33/48; G01 N 33/50; G01 N 33/53; G06 F 19/00

ABSTRACTED-PUB-NO: US20020187512A
BASIC-ABSTRACT:

NOVELTY - A mutant interleukin-22 (IL-22), which comprises at least one amino acid substitution in Region 1 or Region 2, or which comprises at least one mutation at an IL-22 dimerization interface, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for identifying a mutant mammalian IL-22 with a modified ability to dimerize and/or bind an IL-22 receptor, comprising:

(a) constructing a three-dimensional structure of hIL-22 defined by the atomic coordinates fully defined in the specification;

(b) employing the three-dimensional structure and modeling methods to identify an amino acid involved in stabilizing an IL-22 dimer, and/or to identify an amino acid involved in receptor binding;

(c) producing a mammalian IL-22 having a mutation at an amino acid identified in (b); and

(d) assaying the mutant IL-22 to determine the ability of the mutant to dimerize as compared to an IL-22 control, where a difference in dimerization between the mutant and the control is indicative of a modified ability to dimerize, and/or assaying the mutant IL-22 to determine the ability of the mutant to bind to the IL-22 receptor as compared to an IL-22 control, where a difference in binding between the mutant and the IL-22 control is indicative of a modified ability to bind the IL-22 receptor.

ACTIVITY - Antiasthmatic; Antiinflammatory; Cytostatic.

No biological data given.

MECHANISM OF ACTION - Interleukin-22 Agonist/Antagonist.

USE - The mutant IL-22 is useful as a therapeutic agent, particularly as agonists or antagonists. In particular, the mutant IL-22 is useful for treating and inhibiting IL-22 mediated processes or IL-22 related disorders, e.g. asthma, inflammation or cancer. The three-dimensional crystal structure of IL-22 is useful for identifying specific amino acids involved in binding the IL-22 receptor, and in rational drug design for producing therapeutic molecules, mimetics, IL-22 mutants, or ligands of the IL-22 receptor.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

---

☐ 23. Document ID: EP 1443055 A2, WO 9961617 A1, AU 9942087 A, EP 1082433 A1, MX 2000011729 A1, JP 2002516103 W, US 20030003545 A1, US 20030092133 A1

L4: Entry 23 of 23 File: DWPI Aug 4, 2004

DERWENT-ACC-NO: 2000-072622
DERWENT-WEEK: 200451

TITLE: Novel polynucleotides used to develop products for treating e.g. immune disorders, blood disorders, autoimmune disorders, allergies, inflammation, hyperproliferative disorders or infections

INVENTOR: EBNER, R; RUBEN, S M

PRIORITY-DATA: 1999US-131965P (April 30, 1999), 1998US-087340P (May 29, 1998), 1998US-099805P (September 10, 1998), 1999US-0320713 (May 27, 1999), 2002US-0153770 (May 24, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 1443055 A2	August 4, 2004	E	000	C07K014/54
WO 9961617 A1	December 2, 1999	E	169	C12N015/24
AU 9942087 A	December 13, 1999		000	
EP 1082433 A1	March 14, 2001	E	000	
MX 2000011729 A1	June 1, 2001		000	A61K038/20
JP 2002516103 W	June 4, 2002		233	C12N015/09
US 20030003545 A1	January 2, 2003		000	C12Q001/68
US 20030092133 A1	May 15, 2003		000	C07K014/54

INT-CL (IPC): A61 K 38/00; A61 K 38/20; A61 K 39/395; A61 K 45/00; A61 P 7/04; A61 P 9/00; A61 P 15/08; A61 P 25/00; A61 P 35/04; A61 P 43/00; C07 H 21/04; C07 K 1/00; C07 K 14/00; C07 K 14/54; C07 K 16/24; C07 K 17/00; C12 N 1/15; C12 N 1/19; C12 N 1/21; C12 N 5/00; C12 N 5/02; C12 N 5/06; C12 N 5/10; C12 N 15/00; C12 N 15/09; C12 N 15/24; C12 N 15/63; C12 N 15/70; C12 N 15/74; C12 P 21/02; C12 P 21/04; C12 Q 1/68; G01 N 33/68

ABSTRACTED-PUB-NO: WO 9961617A
BASIC-ABSTRACT:

NOVELTY - New isolated human interleukin-21 (IL-21) and IL-22 polynucleotides (PNs) and polypeptides are disclosed.

DETAILED DESCRIPTION - A novel isolated nucleic acid molecule (NAM) comprises a PN having a nucleotide sequence (NS) at least 95% identical to a sequence selected from:

(1) a PN fragment having a fully defined 705, 1067 or 1642 base sequence, given in the specification or a PN fragment of the cDNA sequence in ATCC No. 209666 or 209655;

(2) a PN encoding a polypeptide fragment having a fully defined 87, 160 or 197 residue amino acid sequence given in the specification, or the cDNA sequence in ATCC No. 209666 or 209655;

(3) a PN encoding conserved polypeptide domain (I), (II), (III), or (IV) of sequence (II), (III) or (IV) or the cDNA sequence in ATCC No. 209666 or 209655;

(4) a PN encoding a polypeptide epitope of sequence (II), (III) or (IV) or the cDNA sequence in ATCC No. 209666 or 209655;

(5) a PN encoding a polypeptide of sequence (II), (III) or (IV) or the cDNA sequence in ATCC No. 209666 or 209655 having biological activity;

(6) a PN which is a variant or an allelic variant of sequence (II), (III) or (IV);

(7) a PN which encodes a species homolog of the polypeptide whose amino acid sequence is shown in sequence (II), (III) or (IV);

(8) a PN capable of hybridized under stringent conditions to any of the PNs as in (1)-(7), where the PN does not hybridize under stringent conditions to a NAM having a NS of only A residues or of only T residues; and

(9) a PN which is complementary to any of (1)-(8).

INDEPENDENT CLAIMS are also included for the following:

(1) a recombinant vector comprising an isolated NAM as in (1);

(2) a method of making a recombinant host cell comprising an isolated NAM as in the novelty, (1) or (2);

(3) a recombinant host cell produced by a method as in (2);

(4) an isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from:

(a) a polypeptide fragment of sequence (II) or the encoded sequence included in ATCC No. 209666, optionally having biological activity;

(b) a polypeptide domain or epitope of sequence (II) or the encoded sequence included in ATCC No. 209666;

(c) a mature form of a secreted protein or a full length secreted protein;a variant, allelic variant, or species homolog of sequence (II);

(5) an isolated antibody that binds specifically to an isolated polypeptide as in (4);

(6) a recombinant host cell that expresses an isolated polypeptide as above;

(7) a gene corresponding to a cDNA sequence of sequence (II), (III) or (IV).

ACTIVITY - Immunestimulatory; anticoagulant; immunosuppressant; antiasthmatic; antiinflammatory; cytostatic; antiviral; antibacterial; fungicide; vulnery.

MECHANISM OF ACTION - The IL-21 and IL-22 proteins modulate IL-6 secretion from NIH-3T3 cells. IL-21 and IL-22 proteins modulate immune system cell proliferation and differentiation in a dose-dependent manner.

USE - The polypeptides can be used for preventing, treating or ameliorating a medical condition (claimed). IL-21 and IL-22 polypeptide or PNs may be useful in treating deficiencies or disorders of the immune system, by activating or inhibiting the proliferation, differentiation, or mobilization (chemotaxis) of immune cells, treating or detecting deficiencies or disorders of hematopoietic cells, to modulate hemostatic or thrombolytic activity, in treating or detecting autoimmune disorders, treating asthma (particularly allergic asthma) or other respiratory problems, to treat and/or prevent organ rejection or graft-versus-host

disease (GVHD), to modulate inflammation (e.g. septic shock, sepsis, arthritis, nephritis, cytokine or chemokine induced lung injury, inflammatory bowel disease, Crohn's disease, or resulting from over production of cytokines), to treat or detect hyperproliferative disorders, including neoplasms in the abdomen, bone, breast, digestive system, liver, pancreas, peritoneum, endocrine glands, eye, head and neck, nervous (central and peripheral), lymphatic system, pelvic, skin, soft tissue, spleen, thoracic and urogenital, hypergammaglobulinemia, lymphoproliferative disorders, sarcoidosis, Waldenstron's macroglobulinemia), to treat or detect infectious agents, e.g. viruses (e.g. arthritis, bronchiollitis, encephalitis , eye infections, chronic fatigue syndrome, hepatitis, meningitis, AIDS, pneumonia, chickenpox, measles, mumps, parainfluenza, rabies, the common cold, polio, leukemia, rubella, sexually transmitted diseases, or skin diseases) bacterial or fungal agents (e.g. bacteremia, endocarditis, eye infections, gingivitis, opportunistic infections, respiratory tract infections, Lyme disease, cat-scratch disease, paratyphoid fever, food poisoning, pneumonia, gonorrhea and sexually transmitted diseases, meningitis, tuberculosis, lupus, gangrene, tetanus, rheumatic fever, urinary tract infections, wound infections), parasitic agents (e.g. scabies, dysentery, liver disease, malaria, toxoplasmosis), to differentiate, proliferate and attract cells, leading to the regeneration of tissues (e.g. repair, replace or protect tissue in wounds, burns, incisions or ulcers, osteoporosis, osteocarthritis, periodontal disease, liver failure, surgery, cosmetic plastic surgery, reperfusion injury) to proliferate and differentiate nerve cells (e.g. spinal cord disorders, head trauma, cerebrovascular disease and stroke), localized neuropathies and central nervous system diseases (e.g. Alzheimer's disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome). IL-21 and IL-22 polypeptides or PNS may also increase or decrease the differentiation or proliferation of embryonic stem cells and hematopoietic lineage, may be used to modulate mammalian characteristics such as body height, weight, hair color, eye color, skin, percentage of adipose tissue, pigmentation, size, and shape, to modulate mammalian metabolism affecting catabolism, anabolism, processing, utilization and storage of energy, to change a mammal's mental state or physical state by influencing biorhythms, caricadic rhythms, cicadian rhythms, depression (including depressive disorders), tendency for violence, tolerance for pain, reproductive capabilities, hormonal or endocrine levels, appetite, libido, memory, stress, or other cognitive qualities, as a food additive or preservative, such as to increase or decrease storage capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional components. The polypeptides can also be used to identify binding partners. Mutations in the PNs or the presence or amount of expression or activity of the polypeptides can be used for diagnosing a pathological condition or a susceptibility to a pathological condition (claimed).

Terms	Documents
(interleukin-22 or il-22) same (muta$7 or variant)	23